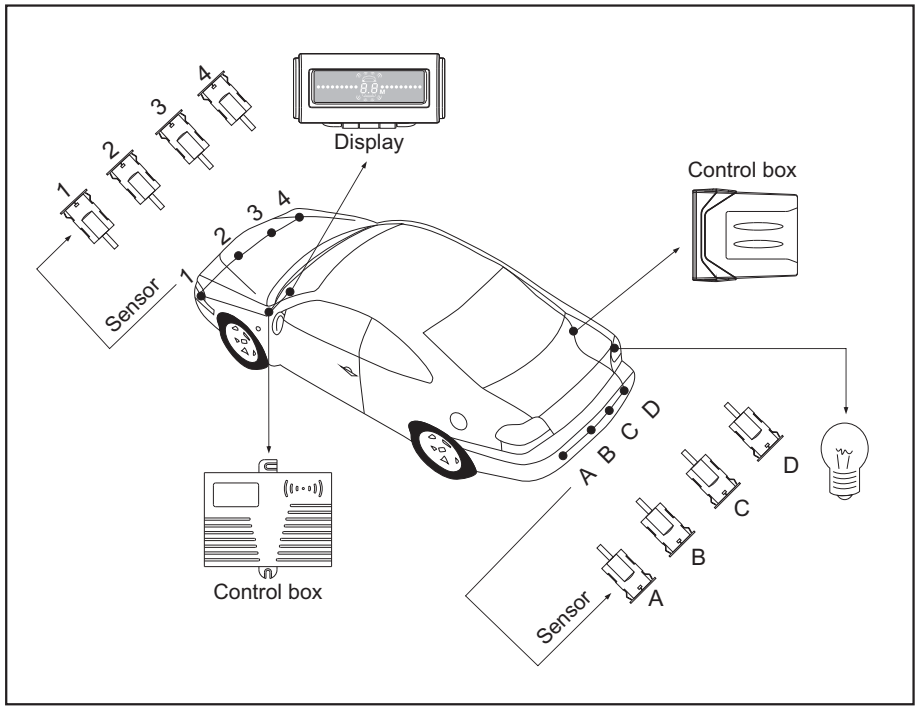
H-066

PARKING SENSOR SYSTEM

USER'S MANUAL

ISO/TS 16949:2002 FM 505383
ISO 9001:2000 FM 78496

GENERAL INSTALLATION DIAGRAM



Working Conditions：

1、When reverse the car, 8 sensors work at the same time. The distance from nearest obstruction and the bumper will be shown on the display with horn alarming and direction indicator.

2、When drive forward, only the front sensors work.

Three options to control the front sensors

a、Control by switch: Yellow wire of front control box — Switch — ON/ACC

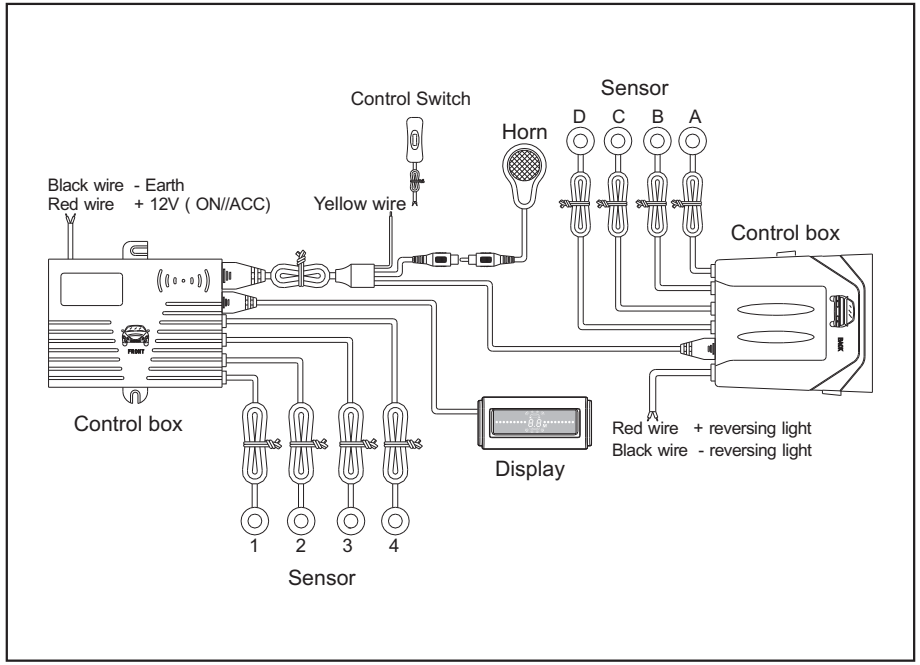
When switch on, the front sensors start to work.

b、 Control by braking : Yellow wire of front control box — Braking signal

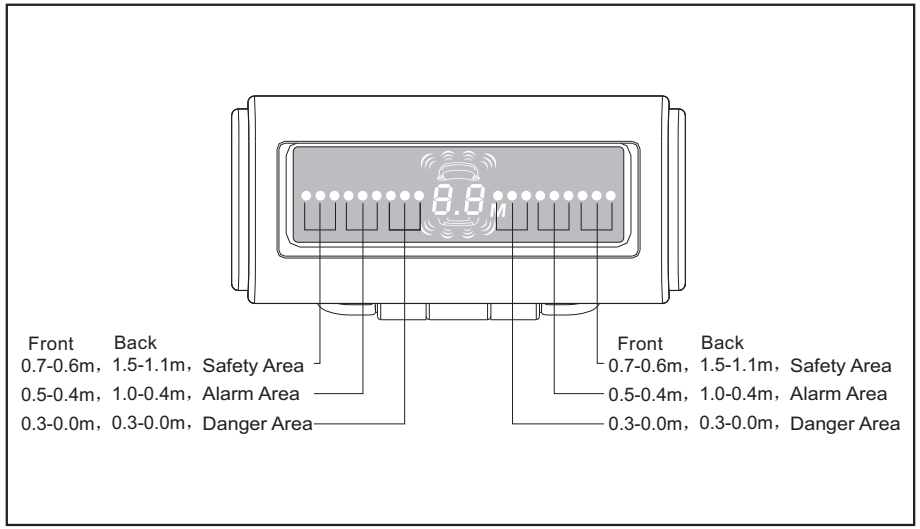
When brake the car, the front sensors start to work ; when stop braking, the front sensors stop working in 30 second.

c、Control by both the switch and braking : Yellow wire of front control box — Switch — Braking signal

When switch on, the front sensors start to work as above mentioned option b.

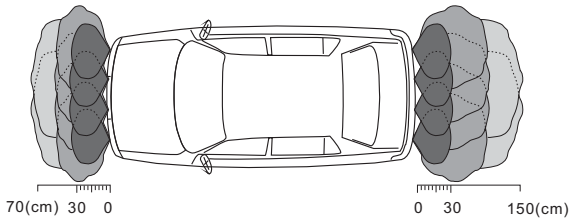


LCD DIGITAL DISPLAY

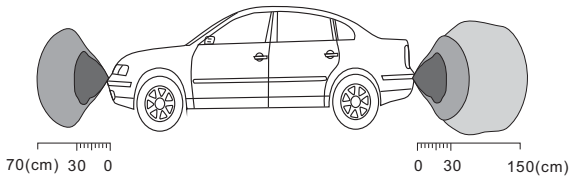


DETECTING RANGE

Top View



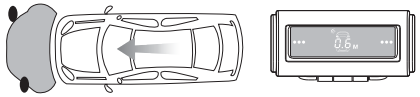
Side View



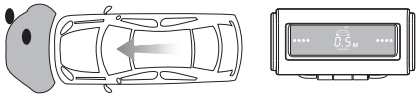
DISPLAY STATUS

(Front detection)

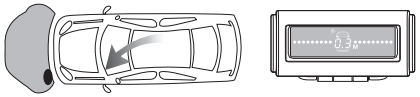
Safety Area 60-70cm



Alarm Area 40-50cm

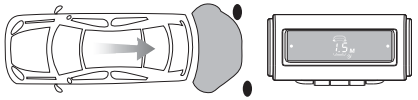


Danger Area 0-30cm

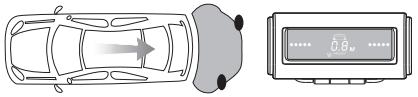


(Rear detection)

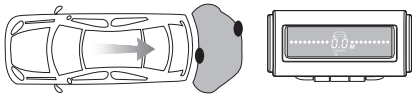
Safety Area 110-150cm



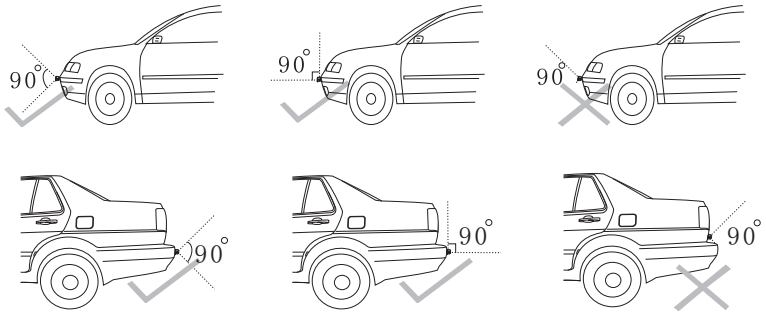
Alarm Area 40-100cm



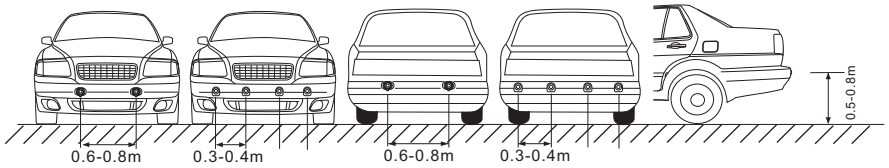
Danger Area 0-30cm



SENSOR INSTALLATION DIAGRAM



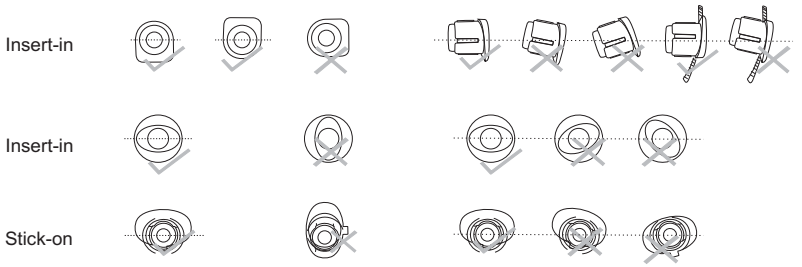
Be sure no other part of vehicle falls into detecting range of sensors.



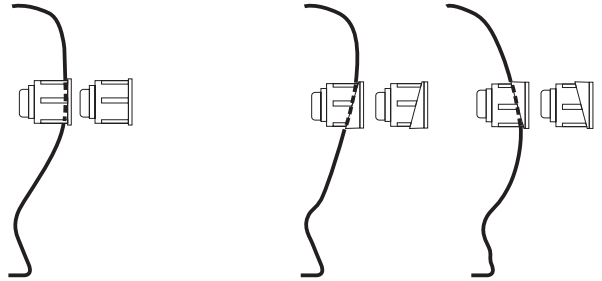
The best position for 2 sensors

The best position for 4 sensors

The direction of sensors

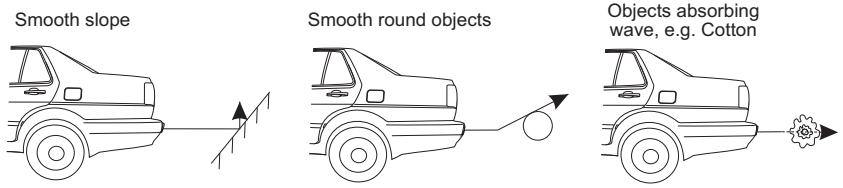


The direction of sensors



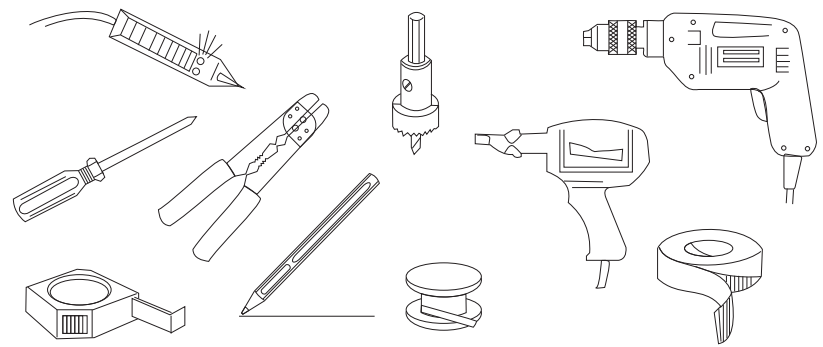
Vertical installation position to the ground Sloping installation position to the ground

Stick-on and insert-in sensors in various shapes for options

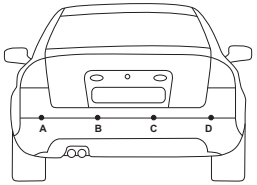


Objects hard to be detected

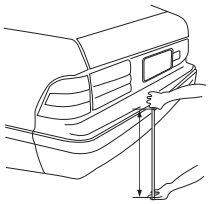
INSTALLATION TOOLS



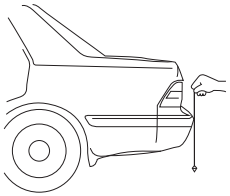
1. Advised position to install the sensors



A. 4 drilled holes (A,B,C,D) should be under the same line.

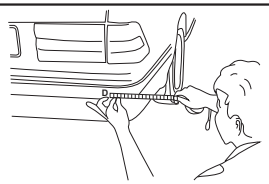


B. 0.5-0.8m vertically high to the ground, 0.55 is recommended.

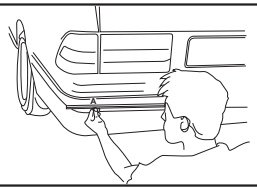


C. Vertical, tidy surface without metal components is preferred.

2. Select drilling position for sensor A & D



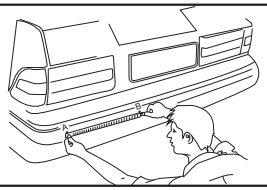
A. Choose suitable drilling position for A & D sensor with relevant mark.



B. To perform the best detecting angle, select the position for A & D sensor with 8-13CM away from the side, 11CM is recommended, and 20° with the side.

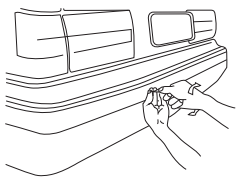
3. Select drilling position for sensor B & C

A. Measure the distance between sensor A and D, get the result "L".

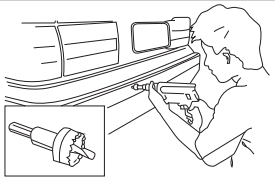


B. Mark sensor B & C for every 1/3 "L" interval.

4. Drilling

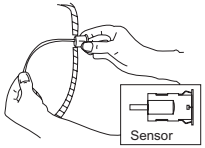


A. Drill with a small awl to locate.

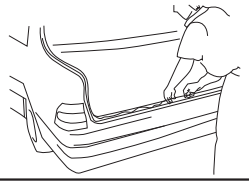


B. Drill with the original driller.

5. Sensor Installation

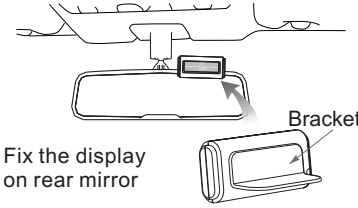


A.. Insert the sensors into the holes one by one and tighten them. The sensor with metal slice must be installed following the direction.

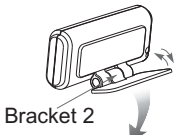


B. Hide the wires in good order according to various cars.

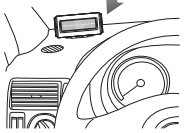
6. Others



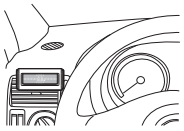
Fix the display on rear mirror



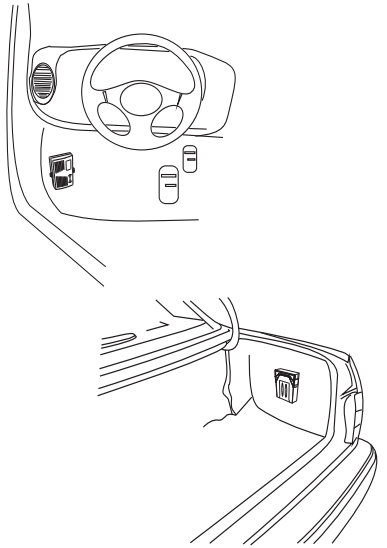
Display is adjustable for different vision angel



Fix the display on dash board

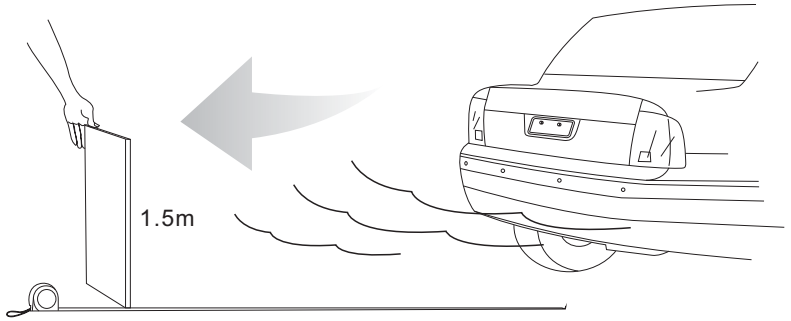


The display should be installed where easy to be seen.



Locate the control box in the boot, keep safe, cool, dry and away from shake and interference.

7. Sensor Detecting



H-066 PARKING SENSOR

H-066 Parking Sensor System consists of ultrasonic sensors, digital control box and LCD display. The system detects the distance between the car and front/rear obstruction by ultrasonic sensors installed at the front/rear bumper of car. The distance will be displayed in an innovative mode with the special designed LCD, numeric display and step-up sounds, which will be changed according to the actual positions detected obstruction so that the driver could judge the distance and avoid accident.

MAIN FEATURES

- Digital LCD display
- Three-stage simulation alarm
- Front and back detection
- Four-stage simulation distance display
- "DingDingDing", "DangDangDang" alarm sound
- Hidden installation
- Switch, Braking delay control
- Self-test function of sensor

TECHNICAL SPECIFICATIONS

- Rated Voltage: DC 12V
- Operating Range: DC 10-16V
- Operating Current: 30-360mA
- Detecting Distance: Front（0.3～0.7m） Rear（0.3～1.5m）
- Ultrasonic Frequency: 40KHz
- Working Temperature of Control Box: -30-+70℃
- Working Temperature of Display: -20-+70℃
- Display Size: 70*32*14mm

ALARM MODE

（Front detection）

Stage	Distance	Awareness	Alarm Sound	Digital Display	Alarm Color
1	>0.7m	Safety Area	Silence		
2	0.6~0.7m	Safety Area	Ding…Ding…Ding	0.6~0.7	White
3	0.4~0.5m	Alarm Area	Ding…Ding…Ding	0.4~0.5	White
4	0.3m	Danger Area	Ding……	0.3	White
5	<0.3m	Danger Area	Ding……	0.0	White

（Rear detection）

Stage	Distance	Awareness	Alarm Sound	Digital Display	Alarm Color
1	>1.5m	Safety Area	Silence		
2	1.5~1.1m	Safety Area	Dang……Dang……	1.5~1.1	White
3	1.0~0.4m	Alarm Area	Dang…Dang…Dang	1.0~0.4	White
4	0.3m	Danger Area	Dang……	0.3	White
5	<0.3m	Danger Area	Dang……	0.0	White

INSTALLATION STEPS

1. Choose right installation position for sensors
2. Select drilling position for sensor A & D （Select drilling position for sensor 1 & 4）
3. Select drilling position for sensor B & C （Select drilling position for sensor 2 & 3）
4. Locate the position and drill
5. Install the sensors and hide wires
6. Install the display
7. Install the control box
8. Connect the whole system according to the General Installation Diagram

INSTALLATION AND TEST

1. Adjust the directions of the sensors and axial orientation, neaten the wiring after installing the sensors.
2. Connect the power supply of back control box to the reversing light. Connect the power supply of front control box to auto ignition switch.
3. Connect the data wires between the front control box and display, and disposal the control switch with front control box. Do not disposal the sensor at the moment.
4. When the car is started, the horn sounds "Dang,Dang" to enter into working status , 2s later, it turns to standby status. Put the car into back gear, then the display shows "En" (n=0,1,2…)to show the number of defective sensors, with the indication of exact defective sensors. Insert one of the sensors into corresponding interface in front/back control box. Human being could be detected normally, if he stands within 0.7m right before the sensor; Pull out the sensor, and check other sensors in the same method. Insert all the sensors in corresponding interfaces after testing.

Test: a. After connect a sensor with the control box, if the buzzer sounds"Bi……", please check whether there is any obstacle around it, or the sensor is fixed too tight or close to great interference sources(such as vent-pipe, wires) ;b. If the display shows any distance figure with no obstacle around the sensor, the sensor may detect the ground or some outshoots of the car(such as registration mark etc.), please check the directions of sensor and axes; c. If the system still could not work properly after the above mentioned handling, the sensor(s) can be deemed defective, or unmatch with the control box. The system should be replaced.

Note: a. The connection between sensor and the digital control box is unique. b. It performs as: when detecting within 0.3m, it shows "0.0", instead of 0.1-0.2 to alert which requires the driver to stop immediately.

NOTE

1. The car must be in power-off, when installing ultrasonic sensors
2. Its performance may be affected in following situation: heavy rain, gravel road, bumpy road sloping road and bush, very cold, hot or moist weather, or the sensors is firned or iced over.
3. Switches among ultrasonic, electric wave, DC and AC and those among 24V, 12V voltages may also effects its performance.
4. The sensors should be installed appropriate loose or tight.
5. Its performance will be effected if the sensors are fixed on metallic bumper.
6. Avoid installing the digital control box in places of great interference, such as vent-pipe, wiring nearby.
7. Test the system to make sure it works normally before using.
8. This system is a reversing aid and the manufacturer will take no responsibility for any accidents caused after the kit is installed.